

Effect of Ambient Gas Density

High-Speed Schlieren Movies of Diesel Sprays

Parameter	Low Density	High Density
Ambient O ₂ [%]	21	21
Ambient Temperature [K]	1000	1000
Ambient Density [kg/m ³]	14	58
ΔP_{inj} [MPa]	136	137
Orifice Diameter [mm]	0.260	0.260

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Fuel is #2 diesel fuel. Injector tip to wall is 109 mm.

The spray penetration rate decreases with increasing ambient density (Naber SAE 960034) because of higher momentum exchange with the ambient.

*For further information, contact Web Grand Pooh-Bar
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